Heads of Agency ISS News Conference

A Panel Consisting of:

MICHAEL GRIFFIN, Administrator, National Aeronautics and Space Administration

KEIJI TACHIKAWA, Japanese Space Agency

ANATOLY PERMINOV, Russian Space Agency

JEAN-JACQUES DORDAIN, Director-General, European Space Agency

VIRENDA JHA, Canadian Space Agency

[Moderated by Dean Acosta]

1:00 p.m. through 1:50 p.m., EST
Thursday, March 2, 2006
Kennedy Space Center

[TRANSCRIPT PREPARED FROM A WEBCAST RECORDING.]
ADMINISTRATOR GRIFFIN: [In progress] -- on the final configuration of the International Space Station with no major changes from the configuration you have come to know and love.

The budget in the United States and the plans for the fly-out of the Space Shuttle Program support those agreements. The budget of this President supports those agreements.

In that vein, then, we look forward to future success in returning the Shuttle to flight, completing the assembly of the Space Station, using the Space Station to generate the kind of data and information that will enable our program of Exploration to return to the Moon and continue on to Mars after we have completed the station, and in so doing -- [webcast audio break] -- of the member nations as we have been doing and as we hope to continue to do.

So it was a good meeting, a very enjoyable time to be here, and with that, I think I will finish and turn it over to Virenda from Canadian Space Agency.

MR. JHA: Thank you, Mr. Griffin.
Good afternoon. From the Canadian Space Agency point of view, the meeting was very fruitful and successful. We are very pleased that the new assembly sequence meets our needs and those of all other international partners.

We have agreed roughly the timelines for the launch of the remaining portions of the Canadian robotic systems, which is contributing to the construction and maintenance of the Space Station. We are very proud of our contribution. We are also looking forward to the resumption of the Shuttle flights and the upcoming flights of our Canadian astronauts.

We, as we did in the meeting, fully endorse the conclusions reached in this meeting and fully support the statements which have been released as joint statements.

Thank you.

MODERATOR: Mr. Dordain?

MR. DORDAIN: Yes. Thank you.

So I understand that today is another important step towards our consolidated partnership of the International Space Station.

Last December in Europe, we have got renewed
commitments from the ESA member states. We have got
budgets. We have the willingness to cooperate among the
partners, and as of today, we have a plan, a detailed plan
which is realistic and which balances the technical and
programmatic risks. So now we have -- just to deliver, we
have now some technical milestones in front of us, and as
far as ESA is concerned, our short-term technical
milestones are, number one, to deliver the Columbus
Laboratory to Kennedy Space Center end of May this year,
and we have to launch the ATV cargo vehicle in May next
year.

So we appreciate the results of this meeting. We
appreciate the efforts which have been made by NASA to put
back the Shuttle flight as well as we appreciate the
Russian efforts to maintain the exploration of the
International Space Station based on Soyuz in progress.

As you can see, the most important result of this
International Space Station is partnership, and each time
we meet, I think that we consolidated that partnership.

DR. TACHIKAWA: First of all, I would like to
express my sincere appreciation to NASA for hosting this
Heads of Agency meeting here.
It really was an important milestone for resumption of the International Space Station assembly and its eventual completion and stresses the international element launches.

We had heard for discussion today, and we endorsed our configuration and assembly sequence as well as plans to operate and utilize the International Space Station in international [inaudible].

I confirmed that we endorse the ISS assembly sequence in which the IP element launches were advanced and resulted in the minimum impact on the JEM, Japanese module, today. I expect the new assembly sequence be implemented as planned.

In Japan, JAXA has been steadily preparing for JEM operations and the utilization, and it is processing with HTV development.

Thank you very much.

MR. PERMINOV: [through interpreter] Thank you.

The Russian side today has fully supported the decisions made on the assembly sequence of the International Space Station and configuration.

We are very thankful, and we are welcoming the
efforts of our U.S. colleagues on launching of the international elements to the international space station.

We have made an agreement with the U.S. side that the Russian science power platform will not be delivered by the U.S. side. However, the American side will make up for it by providing power to the Russian segment from the U.S. segment, starting with next year and after year 2015.

Today, we have announced a number of proposals, and those proposals were addressed to the NASA management and other partners. So those proposals have been well heard and well received.

In general, I estimate today's meeting as a very successful one because we have adopted the plan with very specific actions and very specific dates.

Thank you very much.

MODERATOR: All right. That will conclude the opening remarks.

Now we will go to the question-and-answer session. We will open with questions here at Kennedy Space Center, and then we will go around to the different centers that have media members also watching over NASA television.

Let's go ahead and start right here with Craig.
QUESTIONER: Craig Cavault with Aviation Week.

For Jean-Jacques and Mr. Tachikawa, has the assembly sequence moved both Columbus and JEM earlier in the schedule?

And for Mike Griffin, where does the JEM and Columbus fall now relative to a Hubble servicing?

MR. DORDAIN: The Columbus Laboratory will be launched according to the sequence that we have approved today. The Columbus Laboratory will be launched on the seventh flight of the Space Shuttle, which means earlier launch in the sequence of the Space Shuttle flights, and I must say we appreciate the priority that all partners, and especially NASA, has put on the launch of Columbus.

MODERATOR: Mike, did you want to comment on that?

ADMINISTRATOR GRIFFIN: I was waiting until Dr. Tachikawa had a chance to respond to Craig's question.


[Through interpreter] Talking of Japanese module called JEM, J-E-M, we had a fortunate situation to have one flight advanced. In other words, we have three modules altogether, and the first one will be launched on the
eighth flight. And following that, the other two modules
would be launched on the ninth and twelfth flights. I do
feel that this is very encouraging if all those three
modules will be launched as scheduled.

ADMINISTRATOR GRIFFIN: And my comment in
response to your question is the Space Telescope Servicing
Mission, again, if we conclude that we are able to perform
it, is, of course, not linked to Station assembly. So I
regard the scheduling of the Hubble flight as being
primarily a technical matter that will be best determined
by looking at the needs of the telescope and frankly the
details of the actual timing of the assembly sequence. So
that will be settled largely within Space Ops under Bill
Gerstenmaier, but this is an issue that has visibility at
may level. I've paid a lot of attention to Hubble over the
years, and I will be working with Bill to pick a schedule
for that flight that best works within the confines of the
Station assembly sequence and best works for the Hubble.

Right now, we are looking at something in
possibly early '08, but, you know, final details to follow.
The first of those details is the issue of whether we can
do that mission at all, and I have consistently said, you
know, we need to get the Return to Flight sequence behind us before we can get to any other details.

MODERATOR: Also for media members to know, we are working on an updated diagram of the configuration and assembly sequence. So we will get that out to you shortly after this press conference sometime in the near future. So we will get that to you to help clear things up.

All right. Next question, let's go to Jay, Jay Barbree.

QUESTIONER: Dr. Griffin, if you can launch the first assembly flight August 28th and you have no setbacks, when do you expect to complete the Space Station, and how many assembly flights are you looking at now?

ADMINISTRATOR GRIFFIN: If we launch as given the constraints that you say, then with no setbacks, 16 flights are required to assemble the Station, and we would finish sometime early in fiscal '10. So we have, we believe, substantial schedule margin to complete our job.

MODERATOR: Next question, right up front.

QUESTIONER: Randy Segal, WSTU Radio.

This will go to Mike and Mr. Perminov. With the changing of the order and advancing certain parts, I would
assume we would need to increase the crew size aboard the International Space Station a little bit quicker than may have been intended. What plans do you have currently to increase the size and the number of people on board the ISS to take care of the science necessary with the new modules?

ADMINISTRATOR GRIFFIN: Well, the crew size goes to three with STS-121 and then to six in the 2009 time frame. You know, again, we're going to -- some of these questions could be more easily settled when you get a chance to look at the assembly sequence and the scheduling of the manifest that we are going to give you very shortly, but don't have available for this press conference, but no major surprises there.

MODERATOR: Yeah. I think that will help answer a lot of questions once we get that to you.

Okay. Let's go, second row, right behind, next to Jay.

QUESTIONER: Dan Billow, WESH TV.

For Dr. Griffin, would you discuss and sort of review what the level of U.S. participation in the ISS will be after 2010 and also tell us whether any U.S. hardware will be left on the ground?
ADMINISTRATOR GRIFFIN: I'm not going to speculate about what we are going to do post 2010 with the Station at this point. I'm not the best guy to do that. I'll let you get with Bill Gerstenmaier later on.

It is our plan to fly most of the U.S. hardware and, in fact, everybody's hardware. The Station will be completed.

MODERATOR: Let's go to Todd.

QUESTIONER: Todd Halberson of Florida Today. One for Mike Griffin and one for Mr. Perminov. Mike, can you tell us what the trades were in advancing the International Partner Laboratories? In other words, do you push back the electrical power, or is less electrical power going to be available to the International Partner Labs as a result of moving them up or at least initially?

And for Mr. Perminov, I am wondering if you could go over for us what proposals you made to the partners during the meetings this week.

ADMINISTRATOR GRIFFIN: I will go first. Again, same answer as I just gave. When we are going to get down into the details of the assembly sequence, I'd rather let
you work with our head of Space Ops, Bill Gerstenmaier, on that. We certainly are not going to put up modules, however, that cannot be appropriately supported with power and thermal conditioning by the infrastructure elements of the Station, and again, I will let you pursue further details as long as you and Bill can stand each other.

And, Mr. Perminov, I will defer now to you, sir.

MR. PERMINOV: [through interpreter] Thank you.

According to the configuration of those decisions which have been adopted today, I would like to confirm the words of Dr. Griffin here today that the Russian module will be provided by the power from the U.S. module, and that power level will be sufficient, and it will go on like that until 2015.

As far as any specifics or any specific details of the contracts and different documents are concerned, we haven't really signed anything. We are still working on the details of those documents, and they will be signed in the nearest time during this year.

I have also made some proposals with regard to the transportation flow to the ISS and cargo flow to the ISS. I have proposed to make a stock of vehicles of Soyuz
and Progress vehicles, and also there have been a number of
other issues which I have raised which we have decided to
walk through during this year.

Thank you.

MODERATOR: All right. We are now going to take
a break from questions here and go to Headquarters in
Washington, D.C. We will come back to Kennedy Space Center
for further questions in just a moment.

We will start off at Headquarters. Again, please
announce who you are and what your affiliate is and who
your question is for.

QUESTIONER: Keith Cowing at NASAWatch.com.

A question for Dr. Griffin and Mr. Perminov. In
a few months, a cosmonaut is going to go out and do an EVA
and knock a golf ball off of the International Space
Station. At the same time, NASA is going to be canceling a
significant amount of research that was going to be done on
the Space Station, research that was promised for decades
and indeed was cited as the reason for doing it. In
addition, space science is being cut back, as we just heard
in a hearing a few minutes ago up on Capitol Hill to pay
for this.
Is this the right message to be sending to taxpayers in America, Russia, Europe, and Japan that it's okay to do a stunt like this, but cutting back on the science, and indeed, is this worth the billions of dollars and rubles and yen and euros that have been spent on this project where stunts are more important than science?

ADMINISTRATOR GRIFFIN: No one is saying that stunts are more important than science. We are doing all of the science that our budget allows us to do, and I think you know that quite well because we have had previous discussions on this.

If we had a bigger budget, we would do more science. We are doing what we can.

In fact, the partners, per the terms of the intergovernmental agreements, have the right to propose and to conduct commercial activities on the Station, provided that all appropriate safety considerations have been dealt with. We are not at the end of that particular road as yet, but we will pursue it. But should there not be a safety issue, then the effort proposed by Roskosmos is a revenue-generating opportunity, not a source of expenditures, and so I do not see it as being opposed to
scientific or engineering research at all.

MODERATOR: Mr. Perminov?

MR. PERMINOV: [through interpreter] To confirm the decisions which have been taken in that regard, definitely right now our priority -- and as correctly said, our priority remains to deliver the hardware to the Station. However, due to the delivery of that hardware and scientific modules, that will give us a better chance to continue and to develop well the scientific programs on the Station, conduct more research.

I think it will get better for all of us if those modules which are planned to be delivered will be delivered there as soon as possible, and if we push that schedule to the left, that will be to all of our benefit in terms of the scientific research.

Thank you.

MODERATOR: Okay. I think we have one more question at Headquarters, and then we will go on to Marshall next.

QUESTIONER: Yoshimoto [ph] from Kyoto News for Mr. Tachikawa. Please allow me to ask him questions in Japanese. [Speaking Japanese language.]
DR. TACHIKAWA: [Speaking Japanese language.]

THE INTERPRETER: The questioner said the following:

I am Yoshimoto of Kyoto News Agency. Let me ask questions in Japanese. You talked about there was three flights, and could you tell us in which years those flights or launches are scheduled right now? I'd like to hear that; in other words, years from your voice or your mouth. Also talking of that one advanced flight you mentioned, would that advancing flight give any kind of positive or negative effect on the operation, for example? Can you think of any positive advantages or disadvantages of having advancing the flight schedule?

Then Dr. Tachikawa said in answering that question as follows:

Speaking of the exact years of the launches of those three flights for JEM, as I said earlier, we will have the eighth, ninth, and twelfth flights to launch those modules, and the flight eighth, that will be launched in 2007, and the ninth and the
twelfth flights are scheduled to be in 2008. And
knowing that the launch schedule is established,
we would like to start preparation for a steady
making the progress in the utilizing that module
for experiments. You asked if there is any
advantages or disadvantages by advancing the
flight launch schedule, but for the time being, I
don't see any disadvantage nor advantage. As
long as that the schedule is adhered to, we would
like to make steady progress in utilizing that
Japanese module for experiments.

MODERATOR: I want to ask reporters for any
questions on the configuration or assembly sequence, let's
hold off until you receive the documents. That way, you
don't waste your question on something that we really can't
get into the details right now until you get the
information. So let's do that. If you have a general
question, let's focus on that for this particular press
conference.

Okay. I believe we have another question from
Headquarters. Let's go ahead and go to The Washington Post
or the New York Times.
QUESTIONER: Warren Leary with the New York Times

For Mr. Perminov and Mr. Griffin. Mr. Perminov, what happens to the Russian segments after 2015? Where will you get your power at that point? And for I guess Mr. Griffin or later Mr. Gerstenmaier, does this mean that all four major power units on the Space Station have to be put up, and is there a possibility that even with all four full configuration power units, the Space Station is going to have a problem with enough power?

MR. PERMINOV: [through interpreter] Thank you.

One of today's proposals which I've made, we have considered utilizing the Station beyond the year 2015, and actually by that time, it will be clearer what will be the role of NASA and other partners in that program, what will be the technical status of those programs and where we will all be by that year.

So, if NASA decides to leave the program after 2015 and, however, if all the modules and hardware is in place, technically it will still be feasible to provide power to the modules.

However, it is hard to say because each year brings corrections to the program. So right now, we are
all looking forward to the second flight of the Shuttle after the resumption of flights, and we will see after that how the program progresses into the future.

        Thank you.

ADMINISTRATOR GRIFFIN: I am not really going to add to Mr. Perminov's remarks. I think it's a matter of speculation as to what the program will do in 2016 and afterward. That is 10 years from now.

The efforts I have are focused on getting the Space Station assembled and in safely flying the Shuttle while we assemble the Station, and then we will move on from there.

MODERATOR: All right. One last question from Headquarters. I believe it is Guy Gugliotta from The Washington Post.

QUESTIONER: Yes. For Mike Griffin, Mike, could you give us your latest estimate on the likelihood of the Shuttle next flying in May, and can you talk in a little bit of detail on how much more detail in Shuttle flights you can handle before you have to start dropping flights?

ADMINISTRATOR GRIFFIN: We are working a schedule as of today that fits with the last part of the May window,
and we are pressing hard to make it, but we are not
pressing so hard that we would do something silly. We are
trying to be -- and we believe we are being -- aware of
technical considerations in preparing for flight.

Whether we fly in May or fly in July 6 weeks
later is, from the point of view of the number of flights
remaining this year and from the overall assembly
sequences, essentially irrelevant, except that it is always
better to do things sooner rather than later.

We expect to get three flights in this year, but
we can manage just fine if it's only two. We have
substantial schedule slack at this point, almost a full
year of schedule slack, in terms of the number of flights
required to complete the Station. So we would have to have
substantial difficulties that we do not now envision in
maintaining our flight rate in order to start any
consideration of contingency plans.

MODERATOR: All right. That wraps up our
questions from Headquarters.

Now let's go to Johnson Space Center. I believe
Mark Karo of the Houston Chronicle.

QUESTIONER: Thanks. It is Mark Karo from the
Houston Chronicle.

I have a question and a follow for Dr. Griffin and perhaps others if necessary, but how do the changes you have made today satisfy or improve the Space Station picture? What is it you have done by moving up the labs that benefits the Space Station?

ADMINISTRATOR GRIFFIN: Mark, I think everyone is focusing on, you know, "moving up the labs" inappropriately. There has been some minor adjustment of the sequence.

What you are seeing today as the output of this Heads of Agency meeting is the result of 10 months of work between the United States and our partners, following my comments immediately after being confirmed as Administrator that a 28-flight Shuttle assembly and utilization sequence was not possible within the remaining lifetime of the Space Shuttle Program, that we simply did not have the flights in the system to be able to do it.

Not everyone agreed with that judgment, and I regret that, but that was my judgment, and so we focused on redefining the Station assembly sequence in fact to concentrate on assembly, and we are largely deferring
utilization and we are paring logistics to the bone. We
don't like that, but confronted with a choice between
having a high confidence to be able to complete the
assembly of the Station and deferring utilization or
utilizing it heavily as we built it and possibly not
finishing, we chose the former course.

Now, as a result of taking that course of action,
meaning to assemble now and utilize largely later, there
has been some adjustment to the flight sequence regarding
the labs, and you will, as we have said repeatedly, get to
see that. We are not hiding it from you. We just don't
have the graphic to give you at this moment, but you will
have it shortly.

The main thing that you are seeing here today is
not adjustments in the flight sequence, but the decision to
put together an assembly sequence that allows us to have
very high confidence that we will finish the Space Station
assembly by the time the Shuttle must be retired.

MODERATOR: All right. Mark, I believe you have
a follow-up?

ADMINISTRATOR GRIFFIN: Or maybe not.

QUESTIONER: Brief follow. Do the plans call for
the Shuttle to do crew transfers, or will that go to the Soyuz or a combination as in the past?

ADMINISTRATOR GRIFFIN: Well, obviously a combination because the very next flight is bringing a crew member up on Station, and we will have a crew of three following 121.

MODERATOR: All right. That wraps us up at Johnson.

Let's go to Marshall for one question, and then we will come back to Kennedy Space Center for a couple of questions before we end the press conference.


This is going back over to the May launch date, that window, and my question is for Dr. Griffin. I understand the external tank just arrived at Kennedy just a few days ago. There were some changes made. How confident are we that some of those changes that were made will swing us into making that May window?

ADMINISTRATOR GRIFFIN: The external tank did arrive yesterday. If I wasn't being tied up with this
press conference, I'd be able to go over and take a look at
the hardware.

[Laughter.]

ADMINISTRATOR GRIFFIN: We do plan to make some
changes to the foam configuration on the ice frost ramps to
minimize the amount of foam which could fall off the ice
frost ramps while still making sure that we keep the outer
surface above the freezing temperature, so that we don't
accumulate ice.

The details of those either have been or soon
will be made available to you. We don't see that as a
schedule driver, quite frankly.

What we are doing that may -- and I will say
"may" and I will say again may affect the schedule is
subjecting these changes to wind tunnel testing before we
make them, and depending on the results of the wind tunnel
testing, we might decide that the suggested changes are a
good idea, in which case we are solidly on track, or we
might decide that they are a bad idea, in which case we
won't make the changes, but we won't necessarily know
exactly what it is that we do want to do, and then that
could become a schedule driver.
We will let you know when we know, but right now, our processing sequence is aiming at May because we want to fly expeditiously. We want to get back into operations.

MODERATOR: That will wrap up our questions from around the field centers.

Let's come back now to Kennedy Space Center. We will go to Mike.

QUESTIONER: Hi. Mike Snyder, Associated Press. I had a question for Mr. Griffin. As you know, the House Science Committee had a hearing this morning which they talked about money that was being taken away from science programs to make up for the budget shortfall for the Shuttle program, and a couple experts described NASA as at a "tipping point" where budgets through 2010 could do major damage to science research in the United States. What is your reaction to that assessment, and do you believe NASA is at a tipping point?

ADMINISTRATOR GRIFFIN: I think those assessments are wrong.

We are trimming the rate of growth in our science programs to a 1-percent increase over the next 5 years, counting fiscal '07, after which, again, we would project
that it could begin to rise in accordance with whatever top
line the agency has provided.

That does result in the delay of several missions
and the cancellation of a couple of small ones, and again,
you know, we regret that. We would obviously like to be
able to do more rather than less. We think the Science
Program has had a tremendous history of returning great
results, but we are in a period in history, following the
loss of and the recovery from the Columbia accident where
the Human Space Flight Program to which we are also
committed needs help.

We are trying to fly out the Shuttle in an
orderly and disciplined way to retirement. We are trying
to use that asset while we have it to complete the assembly
of the Station in concert with our partners who have
invested much, and frankly, those activities are activities
which I have prioritized ahead of a more robust growth in
science.

We also seek to replace our human space flight
capability, and that too must be done in a timely way.

The ultimate choice is not whether or not the
United States is going to have a great space program. We
are. The fact is that something must be delayed. Before accepting any delays in our Science Program, as I have said repeatedly, we delayed the Crew Exploration Vehicle, the Shuttle replacement system, to the maximum extent that I thought prudent. At some point, we had to say we are done delaying the Crew Exploration Vehicle, and we will have to delay other things, and that's what has been done in our Science Program, but to describe that as a tipping point is a reaction that is almost hysterical. It is beyond any reasonable assessment of the quality of our Science Program.

MODERATOR: Right up front.

QUESTIONER: Yes. Stefano Coledan, Time magazine and for Dr. Griffin and Mr. Dordain.

Dr. Griffin, which were the most difficult decisions you had to make in order to all agree during this couple days of meetings? What was the -- was there any discussion that was pretty lively or --

ADMINISTRATOR GRIFFIN: I don't believe that there have been any difficult decisions to make. There have been obvious decisions to make, which are painful to implement. Things which are painful to implement often are
deferred, but we are at a point in planning the fly-out of the Shuttle and the Station assembly sequence where those decisions had to be made.

I think it was a very obvious decision to design an assembly sequence which would focus on the assembly of the Station, so that by 2010, we would have completed Space Station, and to defer the full utilization of that Station until afterwards as opposed to taking a chance, as I said earlier, by trying to cram more flights into the sequence, taking a chance of not finishing the assembly. I think that was a very obvious choice.

As with the comments I just made about deferring some science programs in order to finish the Space Station, these are painful choices, but the painfulness of the choice does not render it less obvious.

QUESTIONER: I understand that in Kourou, you are building a launch pad for Soyuz rockets. Does the European Space Agency intend to purchase Soyuz vehicles and launch them from Kourou with astronauts on board?

MR. DORDAIN: For the time being, there is no plan to launch any astronaut from Kourou. We are putting in cooperation with Roskosmos -- we are building up a
launch pad in Kourou for launching Soyuz, but for the time being is just for launching satellites.

Now never say "never." We shall see, but for the time being, there is no plan.

QUESTIONER: David Waters from Central Florida News 13.

For Mike Griffin, you've been here a while now at the agency. You've gotten a huge grasp on everything that is going on, the inner workings. What do you think is the toughest challenge that you face ahead for the agency and that the agency in general and the workers face here?

ADMINISTRATOR GRIFFIN: Well, I don't have any difficult challenges because I am not doing any of the real work. The guys who are doing the real work are out there today wrestling the external tank into a holding cell, so that they can work on it and later mate it to the Shuttle.

So our challenges as an agency are to basically do what we have said we can do.

When we look at our own statistics maintained internally with regard to our Shuttle operational sequence, over 114 flights, as of this April 12th, that equates to an average rate of 4.56 flights per year for 25 years, and
that counts two accidents and the recovery time from those as well as numerous other stand-downs for things like flow liners and wire bundles and stuff like that, that is lost in the recesses of my memory, but which I am sure you can dredge up. So, given all of those things, we have had that flight rate.

Now, if we can maintain that flight rate, our average over 25 years for the next 5 years, 5 fiscal years, we will easily complete the Station. So that is our challenge, to do what we have done in the past and to do what we say we can do, and I really am -- I will be watching with you because the people who are on the line to accomplish those jobs, you know, turning the wrenches, writing the code, sitting on the consoles, those are the people who have the work to do.

MODERATOR: All right. Out of all reporters, I think we have one reporter that hasn't asked a question, and all right, Todd, we will go to you as well. So let's go ahead.

QUESTIONER: Rory O'Neal with Metro Radio Networks.

From the panel, we have heard terms like "within
budget" and "meets the needs" and "realistic." Is this Space Station in 2010 if everything goes on schedule as completed? Is this the Space Station and the scientific platform that was envisioned to do the robust and aggressive kind of research that was planned 20, 30 years ago?

ADMINISTRATOR GRIFFIN: Yes, it's the same Space Station. As you will see when you see the sequence, you know, the hardware all goes up. For about the third time, what we are doing is we are deferring the utilization of that Station largely, largely deferring the utilization of that Station while we concentrate on building it. Our earlier plans, which were better plans frankly, allowed us to utilize it as we built it to a much greater extent than we can now accommodate, and that is the difference that you are seeing, but the end product is very much as we have envisioned it.

MODERATOR: Todd?

QUESTIONER: Todd Halberson from Florida Today for Mike Griffin.

Mike, can you give us a sense of how -- what the spare situation will be on Station at the end of assembly,
whether or not you will be able to leave gyroscopes and
other critical hardware up there for the years beyond 2010?

ADMINISTRATOR GRIFFIN: We are looking at the
pre-positioning of spares, using whatever payload
capability the Shuttle fleet will have over these assembly
flights. We don't have final answers yet.

We are, of course, also, as you well know,
looking at the creation of commercial logistics capability
through the COTS Program, commercial orbital whatever
services, what I keep calling "commercial cargo and crew,"
so that I don't have to remember an acronym.

Our international partners also are bringing to
bear with HTV from JAXA and ATV from ESA -- are bringing to
bear substantial resupply capability.

Our Russian partners have steadfastly sustained
the Station while the Shuttle has been down. They too have
capability. This truly is an international product led by
the United States, but an international project that I
think we can all be proud of, and we will find a way to
make sure that the logistics and spares issues are dealt
with appropriately.

MODERATOR: All right. We have one last question
here. Dan?

QUESTIONER: Dan Billow again from WESH TV for the ESA Director-General.

Would you please talk a little bit about the ATV and its schedule and capabilities? I believe it was supposed to have been launched last year. Correct me if I am wrong. And also, how many Shuttle flights do you understand are on the table here between now and 2010?

MR. DORDAIN: For the number of Shuttle flights, I think it is much better to ask Mike Griffin because I am not in charge of the Shuttle flight.

You will see the assembly sequence, and as Mike already said, the assembly sequence is based on 16 Shuttle flights. For the ATV, the plan is flowing. We plan to complete the development and fully qualify on ground the ATV by the end of the year, to ship it to the Kourou base beginning of next year for a launch which is today planned for May 2007, but obviously the date of the launch of ATV is not [inaudible] from the assembly sequence because the ATV must arrive at a time when, number one, it is possible to go to the Space Station and, number two, this is useful for the Space Station.
So this is today the plan. The cargo that the ATV will bring to the Space Station is around 10 metric tons of cargo.

MODERATOR: All right. That is going to conclude today's Heads of Agency news conference. I appreciate everybody's involvement and questions.

As I mentioned, we will have the updated diagram of the configuration and the assembly sequence available shortly. For more information, please go to our website at www.nasa.gov.

Thank you very much.

[End of NASA Heads of Agency ISS News Conference held on March 2, 2006.]